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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,318	01/19/2001	Shozo Oguri	2001-0046A	6772

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EXAMINER

BERRY, WILLIE WENDELL JR

ART UNIT	PAPER NUMBER
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3723

DATE MAILED: 05/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/764,318

Applicant(s)

OGURI ET AL.

Examiner

Willie Berry, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 8-13, 16 and 19 is/are rejected.
- 7) ☒ Claim(s) 5, 14, 15, 17, 18 and 20-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "top ring" of claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. Claims 6 and 8-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites sensing during dressing, yet claim 6 also recites measuring after dressing which renders the scope of the claim unclear.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ravkin et al.

Ravkin discloses a polishing apparatus comprising: a polishing table (22 and 20), a top ring (32), a dresser (44 and 46), a sensor being mounted to dresser (column 12, lines 43-45), and a sensor (column 13, lines 1-3).

Ravkin does not disclose a sensor being mounted on the dresser observing a property on the polishing pad in the same embodiment.

It would have an obvious matter of design choice to combine the different embodiments of Ravkin to have the sensor mounted on the dresser observing a property on the polishing pad for the purpose of conditioning and observing the polishing pad.

5. Claims 2-4, 12, 13, 16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ravkin et al. in view of Hayakawa et al.

Ravkin discloses as discussed above.

Ravkin does not disclose sensor observing irregularity on the polishing surface, a display device, and a sensor independently movable to the top ring or dresser.

Hayakawa discloses a sensor observing irregularity on the polishing surface (column 10, lines 8-14), a display device (27), and a sensor independently movable to the top ring or dresser

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(figure six shows sensor 26 independently movable to the top ring) in a polishing device for the purpose of providing improved planarity in the plane of the surface of a substrate to be polished.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Ravkin to include the sensor observing irregularity on the polishing surface, a display device, and a sensor independently movable to the top ring or dresser as taught by Hayakawa for the purpose of providing improved planarity in the plane of the surface of a substrate to be polished.

Response to Arguments

6. Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

7. Claims 5, 14, 15, 17, 18, and 20-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: The references cited in this examination do not show separately or in combination the present detailed embodiment of a polishing apparatus comprising a polishing table having a polishing surface; a top ring for holding a workpiece and pressing the workpiece against the polishing surface; a dresser

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for dressing the polishing surface; a sensor for observing a property of the polishing surface on the polishing table while the polishing surface is being dressed by the dresser; and a determination device for comparing an initial property of the polishing surface which is observed by the sensor with a property of the polishing surface which is observed by the sensor after the polishing surface is dressed by the dresser, and determining when to replace a component of the polishing surface based on the result of the comparison between the initial property and the property of the polishing surface which is observed after the polishing surface is dressed.

9. Claims 6 and 8-11 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Conclusion

Any inquiry concerning this communication from the examiner should be directed to Willie Berry whose telephone number is (703) 308-7467.

WB

Willie Berry, Jr. :wbj
March 10, 2003



Joseph J. Hail, III
Supervisory Patent Examiner
Technology Center 3700